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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/618,693

07/15/2003

Hiroyuki Kiso

240302US0

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07/13/2007

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EXAMINER

COONEY, JOHN M

ART UNIT

PAPER NUMBER

1711

NOTIFICATION DATE

DELIVERY MODE

07/13/2007

ELECTRONIC

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GROUP 1700

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/618,693  
Filing Date: July 15, 2003  
Appellant(s): KISO ET AL.

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Harris A. Pitlick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2-8-07 appealing from the Office action  
mailed 7-11-06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,585,804	LANCASTER ET AL.	4-1986
4,742,089	NAKA ET AL.	5-1988

Art Unit: 1711

4,760,099

CANADAY ET AL.

7-1988

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 29-33, and 37-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recitations of effective amounts of their catalyst components to impact properties as set forth in the claims are not supported by the originally filed supporting disclosure in a manner that it is evident that applicants' invention was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a new matter invention.

Art Unit: 1711

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4, 29-33, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lancaster et al.(4,585,804), alone, or in view of Naka et al.(4,742,089).

Lancaster et al. discloses combinations of catalysts inclusive of triethylene diamine, dimethylethylamine, other amine and metal catalysts, and mixtures thereof (see column 3 line 64 – column 4 line 3, as well as, the entire document).

Lancaster et al. differs from applicants' claims in that combination and specific amounts are not specified. However, Lancaster et al. are clear in their recitation of their usefulness as urethanation catalysts. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed mixtures thereof of the recited species of catalysts as catalysts combinations within the teachings of Lancaster et al. for the purpose of adequately performing their urethanation catalytic effect in order to arrive at the products of appellants' claims with the expectation of success in the absence of a showing of new or unexpected results. Further, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re*

Art Unit: 1711

Reese 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

As to the selection of N,N,N',N'-tetramethyl-1,6-hexanediamine and/or N,N-dimethylcyclohexylamine as compound (2), Naka et al. demonstrates these to be equivalent to triethylenediamine for purposes of urethane catalysis (see column 4 lines 40-60 & lines 41,42,43,and 59). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the equivalent N,N,N',N'-tetramethyl-1,6-hexanediamine and N,N-dimethylcyclohexylamine catalysts of Naka et al. in substitution for the equivalent triethylenediamine tertiary amine catalyst of Lancaster et al. for the purpose of imparting their urethanation imparting effect in order to arrive at the products of appellants' claims with the expectation of success in the absence of a showing of new or unexpected results. It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Claims 1,4, and 29-33, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canaday et al.(4,760,099), alone, or in view of Naka et al.(4,742,089).

Canaday et al. discloses combinations of catalysts inclusive of triethylene diamine, dimethylbutylamine, and mixtures thereof, and other tertiary amines and foam catalysts (see column 11 line 35 - column 12 line 11, as well as, the entire document).

Canaday et al. differs from applicants' claims in that combination and specific amounts are not specified. However, Canaday et al. are clear in their recitation of their usefulness as urethanation catalysts. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed mixtures thereof of the recited species of catalysts as catalysts combinations within the teachings of Canaday et al. for the purpose of adequately performing their urethanation catalytic effect in order to arrive at the products of appellants' claims with the expectation of success in the absence of a showing of new or unexpected results. Further, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum

Art Unit: 1711

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#### **(10) Response to Argument**

Appellants' arguments have been considered. However, rejections are maintained to be proper. Response to appellants' argument will be made based on the order of the rejections as set forth above.



As to the grounds of rejection under 35 USC 112 1<sup>st</sup> paragraph (Ground C), it is held that appellants' supporting disclosure, including page 12 lines 5-12, lacks showing of support for possession of ranges of amount values for their respective catalyst components as now defined by the claims. Appellants' supporting disclosure provides support in the originally filed disclosure for improvement of specifically identified properties not any property as currently claimed. The originally filed supporting disclosure lacks support for improvement of any properties as currently claimed beyond those specifically identified in appellants' originally filed supporting disclosure, and the requirement in the claim that at least one property be dimensional stability does not make up for the lack of support for the indicated effect of improving any property as is currently claimed.

As to the rejection under 35 USC 103 over Lancaster et al., alone, or in view of Naka et al. (Ground A), and the rejection under 35 USC 103 over Canaday et al., alone, or in view of Naka et al. (Ground B), appellants' arguments are unpersuasive.

At the outset it is noted that rejection is over Lancaster et al., alone, with Naka et al. looked to in addressing the embodiments of appellants' claims 30 and 31, particularly, the selection of N,N,N',N'-tetramethyl-1,6-hexanediamine and/or N,N-dimethylcyclohexylamine as compound (2). Accordingly, arguments regarding Naka et al. only apply to claims 30 and 31.

Additionally, it is noted that appellants' claims are directed towards a catalyst composition, and the statements of intended use in the preamble, including blowing

Art Unit: 1711

agent selection, are not elements that are required in meeting the limitations of appellants' claims.

Rejection is held to be properly set forth and maintained. When considering showings of unexpected results, the following must be considered:

Result Must Compare to Closest Prior Art:

Where a definite comparative standard may be used, the comparison must relate to the prior art embodiment relied upon and not other prior art – *Blanchard v. Ooms*, 68 USPQ 314 – and must be with a disclosure identical (not similar) with that of said embodiment: *In re Tatincloux*, 108 USPQ 125.

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Art Unit: 1711

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Appellants have not persuasively demonstrated unexpected results for the catalyst combinations of their claims. Comparisons have not been made with the prior art embodiment relied upon. Applicants have not demonstrated their results to be clearly and convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature. Appellants' showings are not commensurate in scope with the broadly encompassed (claim 1) and/or specifically recited (claim 4) ranges of amount values claimed. Applicants' have not demonstrated their showing to be commensurate in scope with the scope of combinations now claimed.

Appellants' comparisons are made between the catalysts blends of the claims versus catalysts selected individually. Accordingly, appellants' comparisons have not been made with the prior art embodiment relied upon and/or the closest prior art. It stands to be reiterated that appellants' comparisons are insufficient, at least, in that they do not provide the proper comparison. As the prior art provides for blends of catalysts

Art Unit: 1711

being prepared, a proper comparison would necessarily need to show comparisons between catalysts of the present claims and representative catalyst blends of the prior art embodiment relied upon.

Appellants' arguments and recitations of effective amount indications in the claims do not sufficiently address or overcome examiner's positions of obviousness set forth above. Appellants' do not set forth criticality associated with the combinations of catalysts claimed for the ranges of amount values encompassed by the claims that is commensurate in scope with the scope of the claims as they stand. The data provided by appellants is not commensurate in scope with the scope of applicants' claims. Nor has it been adequately demonstrated that the discoveries referred to by appellants are more significant than expected results associated with the combinations of catalysts of the instant concern. Further, it is noted that appellants' presentation of effects in their comparisons have not been demonstrated in a manner that is clear and convincing. It is held and maintained that the requirement that a clear and convincing showing of new or unexpected results commensurate in scope with the scope of the claims has not been met.

Appellants' arguments regarding Naka et al. have been considered. However, lacking the blowing agents referred to by appellants' claims does not negate Naka et al.'s applicability to the instant claims because such elements are not required components of applicants' claimed invention. Examiner's position of "equivalence" as set forth in the rejections above is maintained as proper based on the species of concern being equivalently disclosed for their catalytic effect, and the necessity for a

Art Unit: 1711

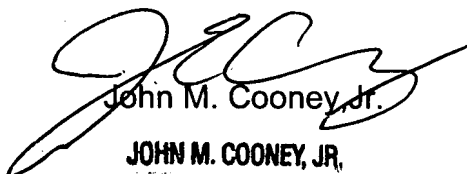
clear and convincing showing based on comparison with the closest prior art of new or unexpected results commensurate in scope with the scope of the claims is maintained to be properly required.

**(11) Related Proceeding(s) Appendix**


No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
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JOHN M. COONEY, JR.  
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